TOKYO* 0027260

FIG.1

FIG.2

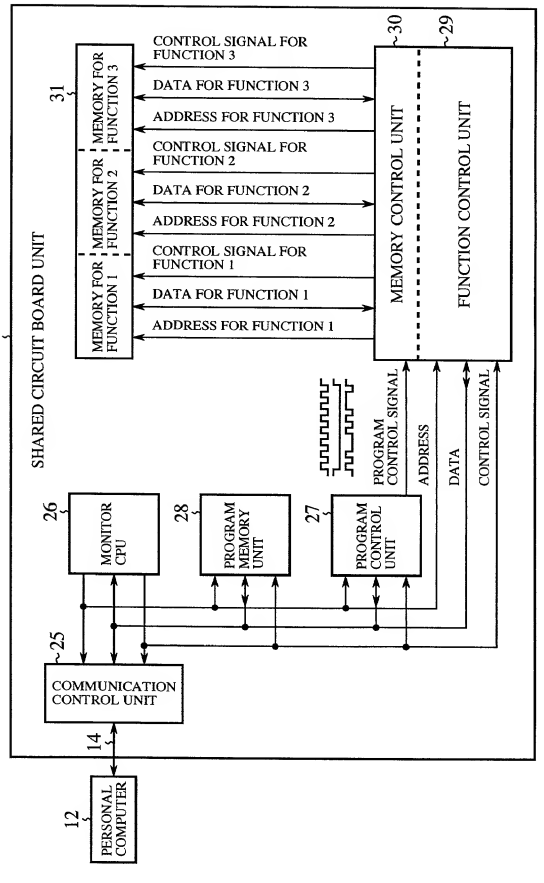
23
SHARED CIRCUIT BOARD UNIT
31
MEMORY FOR FUNCTION 1
MEMORY FOR FUNCTION 2
MEMORY FOR FUNCTION 3
CONTROL SIGNAL FOR FUNCTION 3
DATA FOR FUNCTION 3
ADDRESS FOR FUNCTION 3
CONTROL SIGNAL FOR FUNCTION 2
DATA FOR FUNCTION 2
ADDRESS FOR FUNCTION 2
CONTROL SIGNAL FOR FUNCTION 1
DATA FOR FUNCTION 1
ADDRESS FOR FUNCTION 1
30
MEMORY CONTROL UNIT
29
FUNCTION CONTROL UNIT
PROGRAM CONTROL SIGNAL
ADDRESS
DATA
CONTROL SIGNAL
26
MONITOR CPU
28
PROGRAM MEMORY UNIT
27
PROGRAM CONTROL UNIT
25
COMMUNICATION CONTROL UNIT
14
12
PERSONAL COMPUTER

FIG.3

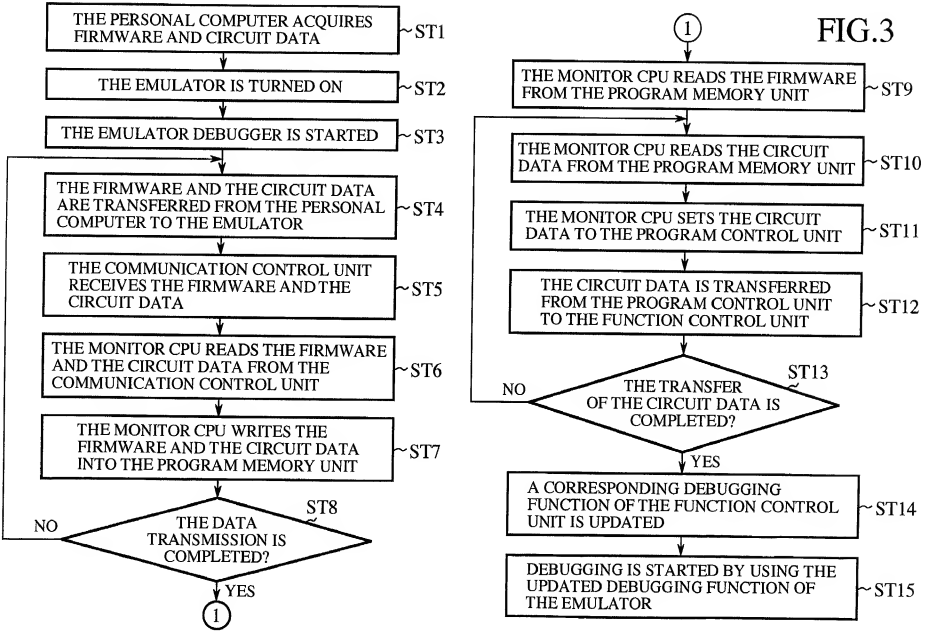
THE PERSONAL COMPUTER ACQUIRES FIRMWARE AND CIRCUIT DATA
ST1
THE EMULATOR IS TURNED ON
ST2
THE EMULATOR DEBUGGER IS STARTED
ST3
THE FIRMWARE AND THE CIRCUIT DATA ARE TRANSFERRED FROM THE PERSONAL COMPUTER TO THE EMULATOR
ST4
THE COMMUNICATION CONTROL UNIT RECEIVES THE FIRMWARE AND THE CIRCUIT DATA
ST5
THE MONITOR CPU READS THE FIRMWARE AND THE CIRCUIT DATA FROM THE COMMUNICATION CONTROL UNIT
ST6
THE MONITOR CPU WRITES THE FIRMWARE AND THE CIRCUIT DATA INTO THE PROGRAM MEMORY UNIT
ST7
ST8
THE DATA TRANSMISSION IS COMPLETED?
NO
YES
1
1
THE MONITOR CPU READS THE FIRMWARE FROM THE PROGRAM MEMORY UNIT
ST9
THE MONITOR CPU READS THE CIRCUIT DATA FROM THE PROGRAM MEMORY UNIT
ST10
THE MONITOR CPU SETS THE CIRCUIT DATA TO THE PROGRAM CONTROL UNIT
ST11
THE CIRCUIT DATA IS TRANSFERRED FROM THE PROGRAM CONTROL UNIT TO THE FUNCTION CONTROL UNIT
ST12
ST13
THE TRANSFER OF THE CIRCUIT DATA IS COMPLETED?
NO
YES
A CORRESPONDING DEBUGGING FUNCTION OF THE FUNCTION CONTROL UNIT IS UPDATED
ST14
DEBUGGING IS STARTED BY USING THE UPDATED DEBUGGING FUNCTION OF THE EMULATOR
ST15

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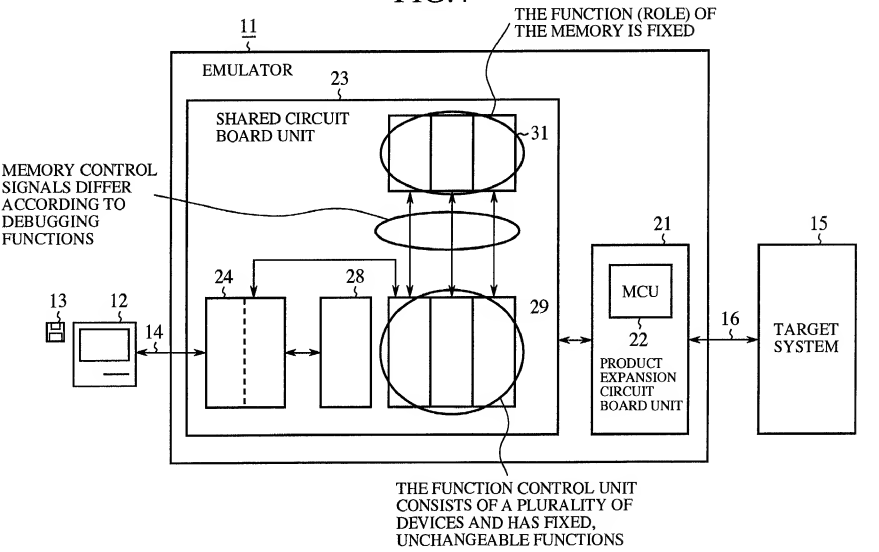
FIG.4



09972903.101001

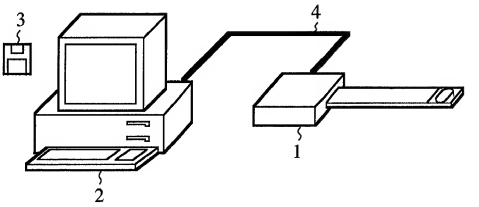



FIG.5